

S7 operation update

Eric Dufresne, TRR group meeting, Apr. 20, 2007

- We have an extensive list of tasks to complete in preparation for the next run of laser experiments in 7ID-C and 7ID-D this summer.
- Several new WWW services provided by the IT group are operational now. A new Elog server is up, a staff site (web guru D. Arms), and a new ANL/APS style webpage on the APS site <http://www.aps.anl.gov/Sectors/Sector7> (contact ED).
- 4 new PCs and two BW laser printers were ordered recently and will be installed on the new network.

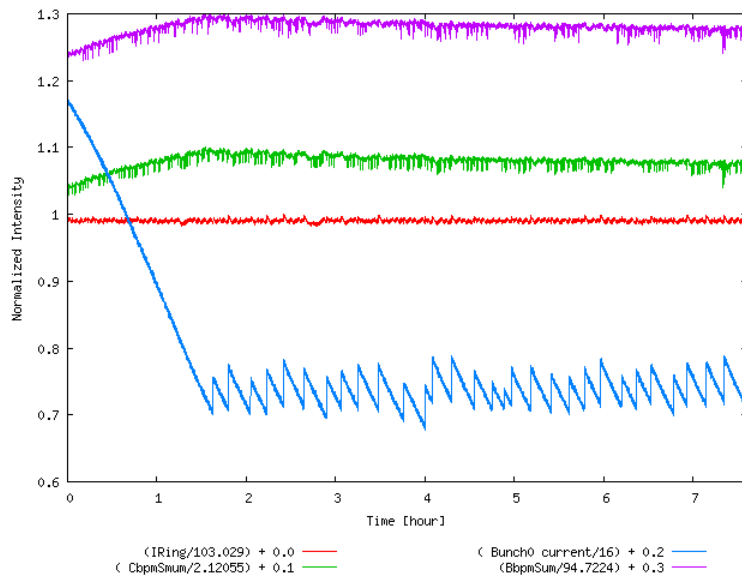
S7 May shutdown

- The beamline controls and network will be integrated in the APS network during the May 2007 shutdown. The experimental floor network upgrade to 10 Gigabits/s wiring should be completed by April 25, 2007.
- All computers on the network will be administered by the APS IT group. The EPICS IOCs will be upgraded to 3.14 by the APS BCDA group. The mhatt.aps.anl.gov domain will be phased out.
- The new IT supported network rack needs dedicated AC circuits. This work is scheduled for next Tuesday.
- On Jan. 26, we had an XOR Safety Inspection. Mitigation of deficiencies found is underway.
- DA and ED tried to integrate the 7ID-A monochromator encoder in EPICS during the start-up week but the new Heidenhain decoder box doesn't seem to read the monochromator encoder pulses. We will work with BCDA to integrate the encoder in EPICS.
- We will develop a plan to bring Air Conditioning in the 7ID-C hutch.
- We plan to install also a new cable tray near 7ID-D (awaiting funding).
- The new control station will be added for 7ID-C next to the new 7ID-D workstation on the Wrightline wall next shutdown.

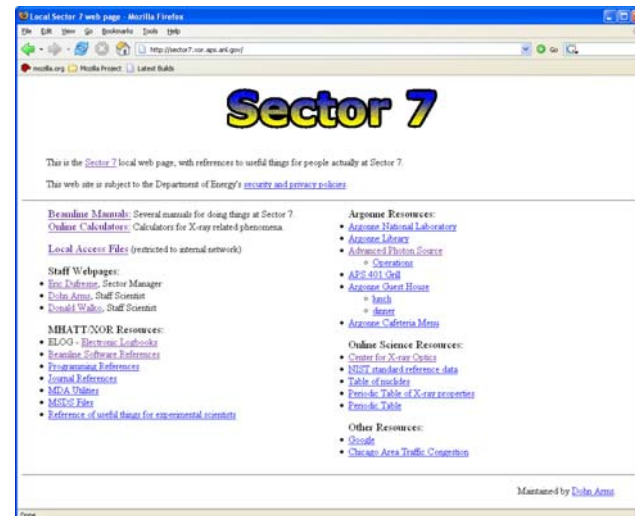
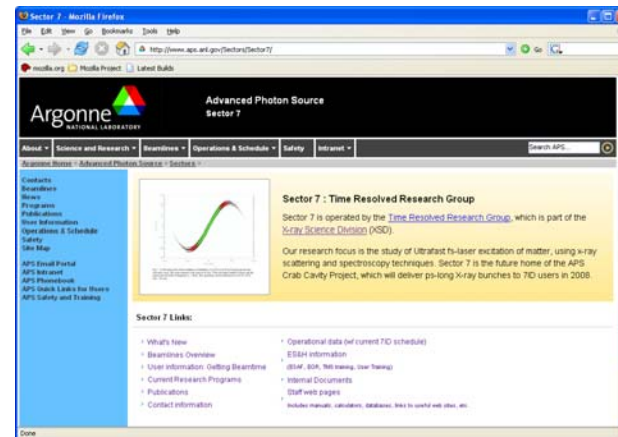
Sector 7 Development and R&D

- JW and partners are developing a plan to complete the 7BM beamline for imaging of fuel sprays. ED and Mark Erdmann (AES) are working on a draft design and equipment need for the beamline.
- Several group members (ED,DW,BA) are traveling to SRI07 next week.

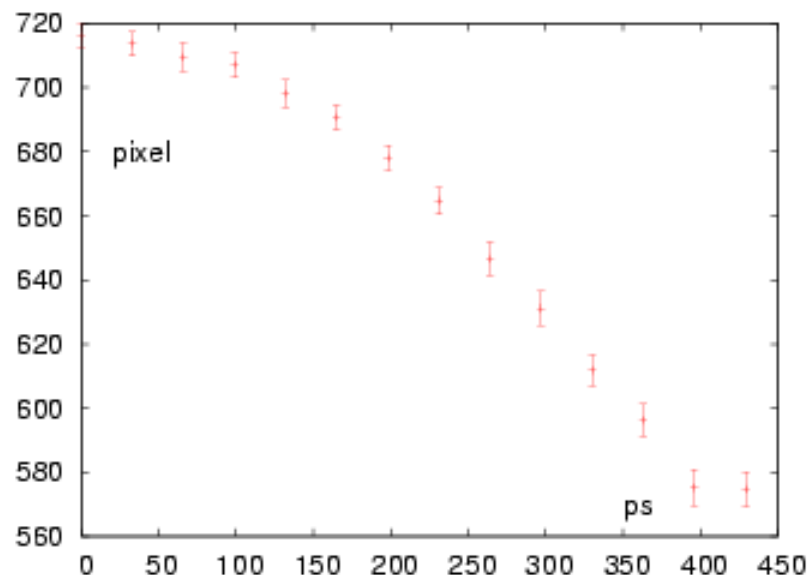
Some recent news in pictures.



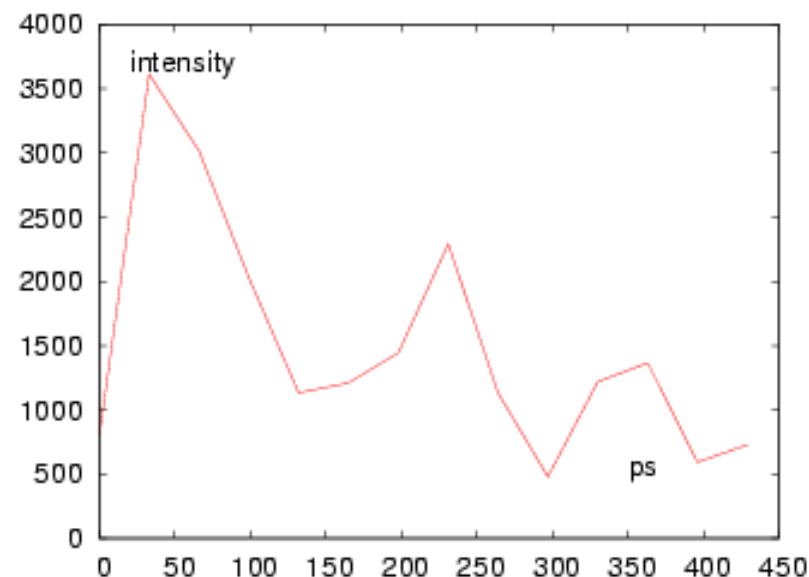
(Blue) Special hybrid test when the current was dropped from 16 to 8 mA on April 17, 07.



Streak camera calibration with laser light only



Streak deflection (pixels) over time delay (ps). The sweet spot slope is 0.5pixel/ps. The error bars are the RMS width of the streak trace (~ 9 ps) from a tilted Gaussian fit.



Peak intensity variations of streak images generated by 400nm light on APD switch. This variation is likely adding jitter.